Appendix G

ADEM Closure Assessment Report for Parcel 140(7), Former Gas Station, Building 1294, at Former Decontamination Complex, Parcel 93(7), Anomaly A-1(2)

ADEM UST CLOSURE
SITE ASSESSMENT REPORT

(Use a Separate form for a group of tanks in each tank pit)

FACILITY I.D. NO.:	NA	DATE OF THIS REPORT:	7/31/00
INCIDENT NO. (If applicable).	UST __ __ - __ __ - __ __	UST OWNER:	U.S. Army
FACILITY COUNTY:	Calhoun	ADDRESS:	Ft. McClellan Anniston, AL
FACILITY NAME:	Parcel 140	CONTACT NAME:	
LOCATION:	A-1(2)	CONTACT PHONE #:	
ADDRESS:	Ft. McClellan Anniston, AL		

NAME OF CONTRACTOR USED TO CLOSE (REMOVE)	IT Corporation
NAME OF CONSULTANT CONDUCTING ASSESSMENT:	IT Corporation
NAME OF LABORATORY USED:	Severn Trent Laboratories

PRIOR TO BEGINNING CLOSURE, THE CONTRACTOR SHOULD BECOME FAMILIAR WITH ALL CLOSURE PROCEDURES IN AMERICAN PETROLEUM INSTITUTE (API) BULLETIN 1604, "REMOVAL AND DISPOSAL OF USED UNDERGROUND PETROLEUM STORAGE TANKS" AND API BULLETIN 2015 "CLEANING PETROLEUM STORAGE TANKS". THESE API BULLETINS ARE AVAILABLE FROM THE AMERICAN PETROLEUM INSTITUTE.

NUMBER OF TANKS CLOSED:	**NONE (none present)(previously removed; no record)**
NUMBER OF TANKS REMAINING AT SITE:	**NONE**
CLOSURE DATE:	**7/31/00 Piping**

UNIQUE TANK #:	**UNK**	**UNK**			
TANK SIZE:	**UNK**	**UNK**			
TANK CAPACITY:	**10,000 gal**	**10,000 gal**			
TANK AGE:	**UNK**	**UNK**			
DATE TANK LAST USED:	**UNK**	**UNK**			
SUBSTANCE STORED:	**Gasoline**	**Diesel**			
TYPE OF PRODUCT PIPING:	**STEEL**	**STEEL**			
(Pressurized/Suction)	**UNK**	**UNK**			
FARM TANK:	☐	☐	☐	☐	☐
HEATING OIL TANK:	☐	☐	☐	☐	☐

1. COMPLETE THE FOLLOWING SECTION FOR ALL CLOSURES:

a. Provide the results of a 500 ft. survey for domestic water supply wells in the following table and place their locations on the attached site map:

Name of Owner of Domestic Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
NONE	NA	NA	NA

b. Provide the results of a 1,000 ft. survey for public water supply wells in the following table and place their locations on the attached site map:

Name of Owner of Public Water Supply Well	Distance from UST Site	Depth of Well	Status: Active or Inactive?
NONE	NA	NA	NA

c. Is the UST site located in a delineated wellhead protection or source water area?

YES ☐ NO ☒

d. Are there any public water supply surface water intakes within 500 ft. of the UST site?

YES ☐ NO ☒

If yes, locate the intake on the attached site map.

NOTE: If an active domestic water supply well or an active public water supply well is located within 500 ft. or 1,000 ft. respectively of the UST site, or if the answer to 1c. or 1d. is Yes, the Department may require groundwater sampling to occur at the UST site. If the groundwater sampling is not performed by the owner/operator during the closure site assessment, the Department may require that groundwater sampling occur as part of a Preliminary Investigation.

Groundwater sampling remains a requirement of the closure site assessment when shallow groundwater is present or when performing an in-place closure site assessment.

e. Indicate the current on-site land use and the most likely future land use:

Current On-Site Land Use			Most Likely Future On-Site Land Use	
Residential	☐		Residential	☐
Commercial	☐		Commercial	☐
Other	☒		Other	☒
Describe: Military Installation (being closed)			Describe: Passive Recreational	

f. Describe the current off-site land use within 500 ft of the UST site. State whether the area, in general, is residential, commercial, mixed residential/commercial or other:

North:	Commercial type and unimproved land associated with the military installation

	Northeast:	
	Northwest:	
South:	Commercial type and unimproved land associated with the military installation	
	Southeast:	
	Southwest:	
West:	Commercial type and unimproved land associated with the military installation	
East:	Commercial type and unimproved land associated with the military installation	

COMPLETE THE FOLLOWING SECTIONS AS APPROPRIATE BASED ON THE TYPE OF CLOSURE CONDUCTED:

2. TANK CLOSURE BY REMOVAL: Tanks previously removed, not found during investigative dig based on geophysical information.

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the excavation and include the following:

1. All appropriate excavation dimensions.
2. All soil sample locations and depths using an appropriate method of identification.
3. Location of areas of visible contamination.
4. Former location of tank(s), including depth, with tank Identification Number.

	YES	NO
c. Is the groundwater more than 5 feet below the bottom of the excavation?	☒	☐
If no, provide the depth from the ground surface to the groundwater table. Feet: _____		
Indicate method used to determine water table depth:	YES	NO
1. Excavation extended 5 feet below base of pit:	☒	☐
2. Boring or monitoring well:	☐	☐
3. Topographic features (Method must be approved by ADEM prior to use):	☐	☐
	YES	NO
d. Was there a notable odor found in the excavation?	☐	☒

If yes,

(1) The odor strength was (mild) (strong) (other) describe: _____

(2) The odor indicates what type of product: (gasoline)(diesel) (waste oil) (kerosene) (other) describe: _____

	YES	NO
e. Was there water in the excavation?	☐	☒
If yes, how was it handled?	YES	NO
1. One time discharge to sanitary sewer with local approval?	☐	☐
2. Hauled to facility capable of treating constituents of petroleum products in water?	☐	☐
3. Hauled to local POTW with local approval?	☐	☐
4. Treated on-site with NPDES approved discharge?	☐	☐
5. Other? Explain: _____		
	YES	NO
f. Was free product found in the excavation?	☐	☒

If yes,

1. How was free product handled? Describe:

2. What was the measured thickness of free product? _____

g. Were visible holes noted in the tank(s)? YES ☐ NO NA

If yes,
Indicate which tanks(s) by the Unique Tank Number: _____

Also, describe the location(s) and provide general description as to the size and number of holes for above noted tanks, (Example: 3 square feet of pinholes or 3 inch diameter hole):
No tank found. The Anomalies investigated (suspected as potential UST) were determined to be Rebar reinforced concrete, old piping, and debris/backfill from previous tank removal activities. PID readings for exploratory excavated soils were noted as 0.0 ppm.

h. Describe the soil type and thickness of all soil layers encountered in the excavation:
Brownish-red silty, sandy, gravelly, CLAYS (backfill).
Excavation dimensions approx. 8' wide X 4' deep X 14' long to expose majority of identified anomaly.

i. Was the excavation backfilled? YES ☒ NO ☐

If yes, provide the date of backfilling: 7/24/00. Due to no visual or PID indications or tanks.

DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!

3. TANK CLOSURE WITHOUT REMOVAL(CLOSED IN-PLACE): N/A

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the site and include the following:

1. Location of the tank(s) including depth,
2. Location of tank(s) with respect to other tanks, if applicable,
3. Soil boring locations and depths at which soil samples were taken,
4. Boring logs.

c. Attach groundwater sampling data, if required based on depth to groundwater.

d. Is the groundwater more than 5 feet below the bottom of the tank? YES ☐ NO ☐

Provide the depth from the ground surface to the groundwater table. Feet: _____

Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.

e. Was there a notable odor found in the bore holes? YES ☐ NO ☐

If yes,
(1) The odor strength was (mild) (strong) (other) describe: _____

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: _____

f. Was free product found in the bore holes? YES ☐ NO ☐

If yes,
1. How was free product handled? Describe: _____

2. What was the measured thickness of free product? _____

g. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

_____

_____

_____

h. Specify the inert solid material used to fill the tank(s):

_____

_____

i. Provide the date the tank(s) were filled: _____

j. Were the bore holes properly sealed with bentonite/soil? YES ☐ NO ☐
If yes, provide the date: _____

4. PRODUCT PIPING CLOSURE BY REMOVAL:

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. If the piping was longer than 10 feet, attach plan and sectional views of the piping trench and include the following:

1. All appropriate excavation dimensions and length of piping,
2. All soil sample locations and depths using an appropriate method of identification.
3. Location of areas of visible contamination.

c. Was the piping purged of product prior to closure? YES ☐ NO ☒
If yes, was the product properly disposed of? ☐ ☐

d. Is the groundwater more than 5 feet below the bottom of the piping trench? YES ☒ NO ☐

If no, provide the depth from the ground surface to the groundwater table. Feet: _____

Indicate method used to determine water table depth:

	YES	NO
1. Excavation extended 5 feet below base of trench:	☒	☐
2. Boring or monitoring well:	☐	☐
3. Topographic features (Method must be approved by ADEM prior to use):	☐	☐

e. Was there a notable odor found in the piping trench? YES ☐ NO ☒

If yes,

(1) The odor strength was (mild) (strong) (other) describe: _____

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: _____

f. Was there water in the piping trench? YES ☐ NO ☒

If yes, how was it handled?

	YES	NO
1. One time discharge to sanitary sewer with local approval?	☐	☐
2. Hauled to facility capable of treating constituents of petroleum products in water?	☐	☐
3. Hauled to local POTW with local approval?	☐	☐
4. Treated on-site with NPDES approved discharge?	☐	☐

5. Other? Explain: _____

g. Was free product found in the piping trench? YES ☐ NO ☒

If yes,

1. How was free product handled? Describe: _____

2. What was the measured thickness of free product? _____

h. Were visible holes noted in the piping? YES ☒ NO ☐

If yes, indicate the location(s) and provide a general description as to the size and number of holes:
Approx. 2"-diameter, 3' long piping extending from southeast corner of pad; capped.
Approx. 2"-diameter, 3' long piping extending from northeast corner of pad; was cut and not capped (hole).

i. Describe the soil type and thickness of all soil layers encountered in the piping trench:
Brownish-red silty, gravelly, clayey SAND (backfill)
Two excavations, each approx. 3' wide X 4' deep X 6' long to expose entire length of pipe in both areas.
Excavated material in both were stockpiled together (based on 0.0 ppm PID readings) and sampled as such.

	YES	NO
j. Was the piping trench backfilled?	☒	☐

If yes, provide the date of backfilling: 8/3/00 due to no visual or PID indications and lab results <100 ppm.

DO NOT BACKFILL WITH MATERIAL THAT HAS OR POTENTIALLY HAS A TPH OF GREATER THAN 100 PPM!

5. PRODUCT PIPING CLOSURE WITHOUT REMOVAL (CLOSED IN-PLACE): N/A

a. Attach a topographic map showing the location of the facility and a general site map showing the area surrounding the UST site.

b. Attach plan and sectional views of the site and include the following:

1. Location of the piping including depth,
2. Location of piping with respect to tank(s), if applicable.
3. Soil boring locations and depth at which soil samples were taken,
4. Boring logs.

c. Attach groundwater sampling data, if required based on depth to groundwater.
Refer to Closure Site Assessment Guidance for further details regarding requirements for groundwater sampling.

	YES	NO
d. Was the piping purged of product prior to closure?	☐	☐
If yes, was product properly disposed of?	☐	☐
e. Was the piping capped?	☐	☐
f. Is the groundwater more than 5 feet below the bottom of the excavation?	☐	☐

Provide the depth from the ground surface to the groundwater table. Feet: _____

Refer to Closure Site Assessment Guidance (page 11) for further details regarding requirements for determining groundwater elevation.

	YES	NO
g. Was there a notable odor found in the bore holes?	☐	☐

If yes,
(1) The odor strength was (mild) (strong) (other) describe: _____

(2) The odor indicates what type of product: (gasoline) (diesel) (waste oil) (kerosene) (other) describe: _____

	YES	NO
h. Was free product found in the bore holes?	☐	☐

If yes,

1. How was free product handled? Describe: _____

2. What was the measured thickness of free product? _____

i. Describe the soil type and thickness of all soil layers encountered in the bore holes and provide boring logs:

_____

_____

_____

_____

j. Were the bore holes properly sealed with bentonite/soil? YES ☐ NO ☐

If yes, provide the date: _____

6. GROUNDWATER SAMPLING (If required by attached closure guidelines): Not required.

a. Indicate the following on the plan and section views required by Section 2.b., 3.b, 4.b, or 5.b. above:

1. The location and depth of the 1 up-gradient and 3 down-gradient borings or monitoring wells. (Monitoring wells in lieu of borings are not required, but may be desirable in certain situations.)

2. The most probable direction of groundwater flow. State basis for determining direction:

_____

_____

_____

b. Was a monitoring well used? YES ☐ NO ☐

If yes, attach a schematic drawing of the well(s) and all boring logs.

c. **SUMMARY OF GROUNDWATER SAMPLING RESULTS: N/A**

Date of Sampling: _____

Boring or MW #:							
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of groundwater samples or variations in sampling dates.

d. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.

7. SUMMARY OF SOIL ANALYTICAL DATA

a. Provide the analytical data obtained from the site in the following tables:

TANK PIT SAMPLES: N/A

Date of Sampling: _____

Sample #:							
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH							
Lead							
COC OPTION:							
Benzene							
Ethylbenzene							
Toluene							
Xylenes							
MTBE							
Anthracene							
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b) fluoranthene							
Benzo(k)fluoranthene							
Benzo(g,h,i)perylene							
Chrysene							
Fluoranthene							
Fluorene							
Naphthalene							
Phenanthrene							
Pyrene							
Lead							

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

PIPING & DISPENSER SAMPLES:

Date of Sampling: **7/24/00**

Sample #:	LL0006	LL0007					
	SE corner of pad	NE corner of pad					
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TPH OPTION:							
TPH							
Lead							
COC OPTION:							
Benzene	ND	ND					
Ethylbenzene	ND	ND					
Toluene	ND	ND					
Xylenes	ND	ND					
MTBE							
Acenaphthene	ND	ND					
Acenaphthylene	ND	ND					
Anthracene	ND	0.031J					
Benzo(a)anthracene	0.0021J	0.049					
Benzo(a)pyrene	ND	0.34					
Benzo(b) fluoranthene	ND	0.16					
Benzo(k)fluoranthene	ND	0.12					
Benzo(g,h,i)perylene	ND	0.21					
Chrysene	0.0025J	0.098					
Fluoranthene	ND	0.13					
Fluorene	ND	ND					
Indeno(1,2,3-cd)pyrene	ND	0.2					
Naphthalene	ND	ND					
Phenanthrene	ND	ND					
Pyrene	0.0099	0.11					
Lead	20.9	14.0					

J – Estimated Result. Result is less than reporting limit.
ND – Analyte not detected above the method detection limit.

Note: Attach additional tables as needed based on number of soil samples or variations in sampling dates.

b. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.

8. EXCAVATED SOIL

ALL EXCAVATED SOIL REQUIRES ANALYSIS PRIOR TO DISPOSAL. TANK CLOSURE SAMPLES FROM THE EXCAVATION MAY NOT BE REPRESENTATIVE OF THE LEVEL OF CONTAMINATION IN THE EXCAVATED SOIL.

For safety and other considerations, it is recommended that open pits and piping trenches should be backfilled as soon as possible with **clean backfill. Soils which have TPH levels greater than 100 ppm or soils for which the level of contamination has not been determined shall not be returned to the excavation pit(s) or piping trenches.**

a. If **piping** was closed by removal, provide an estimate of the volume of soil removed: 2 cubic yds

b. Provide a summary of analytical results for the excavated soil:

Date of Sampling: **7/24/00**

Sample #	TPH Results mg/kg	Lead Results (If applicable) mg/kg
LL8001	29.82	3.6

Note: Attach additional tables as needed based on number of soil sample or variations in sampling dates.

c. Attach the original chain of custody record (**copies are not acceptable**) and the original laboratory data sheet (**copies are not acceptable**) for each sample.

d. Attach the "Total Potential VOC Emissions Calculations" for soil removed.

e. Indicate current method and location of soil management and/or treatment prior to final disposal:

f. Check the method of soil disposal used or to be used:

- ☒ Return to the excavation pit only when TPH is less than or equal to 100 ppm and depth of groundwater is greater than 5 feet from the base of the pit.
- ☐ Spread in a thin layer (6" or less) on site only when TPH is less than or equal to 100 ppm
- ☐ Disposal in a landfill (See attached "Guidelines for the Disposal of Non-Hazardous Petroleum Contaminated Wastes").
- ☐ Incineration.
- ☐ Thermal volatilization.
- ☐ Recycling facility
- ☐ Other _____

g. If soil was disposed of prior to the submittal of this form, indicate the final destination below and attach copies of invoices, receipts, and "certificate of burn" (if soil was incinerated):

9. TANK CLEANING: N/A

	YES	NO
a. The tank(s) were cleaned in accordance with American Petroleum Institute (API) Bulletin 2015 "Cleaning Petroleum Storage Tanks"?	☐	NA

If no, describe how tank(s) were cleaned:
No tanks were identified during investigative dig.

b. Provide an estimate of the volume of sludge removed from the tank: NA Gallons

c. Indicate the final destination of the sludge and attach invoices or receipts:

10. ATTACHMENTS

Attach the following to the closure form in the following order as applicable to the type of closure site assessment performed. Check each box to indicate that a particular map or information is attached to the closure site assessment form. The section of the closure site assessment form that indicates the required attachment is shown.

☒	Topographic Map showing location of site (Section 2.a., 3.a., 4.a., & 5.a.)	
☒	Area map showing general location of the site. Include land use on-site and within 500' of site. (Section 1)	
	☐	Include locations of domestic and public water supply wells, and surface water intakes (Section 1)
☒	Plan and sectional views of the site including the following: (Section 2.b., 3.b., 4.b., & 5.b.)	
	☐	Location of the closed tanks and piping including depth. Include any remaining tanks or piping at site. Include tank identification numbers.
	☐	Excavation dimensions of the tank system
	☒	Locations of soil samples taken for piping and tank which includes the analytical results.
	☐	Location of areas of visible contamination
	☐	Location of any stockpiled excavated soil
	☐	Location of soil borings for an in-place closure
☐	The location and depth of the one up-gradient and 3 down-gradient borings or monitoring wells (Section 6.a.)	
☐	Map illustrating the most probable direction of groundwater flow (Section 6.a.)	
☐	Schematic diagrams of the monitoring wells installed (Section 6.b.)	
☐	Boring logs of soil borings (Section 3.b., 5.b. &6.b.)	
☐	Site Classification Checklist	
☐	**Invoices and/or receipts for sludge disposal (Section 9.c.)**	
☐	Invoices, manifests and certificates of burn or disposal for soil disposal (Section 8.f.)	

☒	Attach the **original** chain of custody record (copies are not acceptable) for each sample which includes at least the following: (Sections 6.d., 7.b., & 8.c.)	
	☒	Sample identification number,
	☒	Date and time sample was taken,
	☒	Name and title of person collecting sample (see certification requirement on page 15 of this form),
	☒	Type of sample (soil or water),
	☒	Type of sample container,
	☒	Method of preservation,
	☒	Date and time sample was relinquished,
	☒	Person relinquishing sample,
	☒	Date and time sample was received by lab,
	☒	Person receiving sample at lab.

☒	Attach the **original** laboratory data sheet (**copies are not acceptable**) which includes at least the following: (Sections 6.d., 7.b., & 8.c.)	
	☒	A sample identification number which can be cross referenced with the soil sample locations indicated on the plan and sectional views required by Section 2.b., 3.b., 4.b., or 5.b. above
	☒	The sample analytical results with appropriate units,
	☒	The method used to analyze each sample,
	☒	The date and time the sample was analyzed,
	☒	The person analyzing the sample.

11. SIGNATURES

This form should be completed, signed, and returned, along with any other pertinent information, to the following address:

The Alabama Department of Environmental Management
Groundwater Branch
Post Office Box 301463
Montgomery, AL 36130-1463
(334) 270-5655

INCOMPLETE FORMS WILL BE RETURNED FOR CORRECTION.

Name of person taking soil and/or groundwater samples: James R. Messer

Company: IT Corporation

Telephone Number: 256-848-3499

I certify under penalty of law that I have obtained representative soil and/or groundwater samples using accepted sampling procedures.

Signature: _____ Date: _____

Either a Geologist or an Alabama Registered Professional Engineer must sign this form:

I certify under penalty of law that I have performed this closure site assessment in accordance with accepted soil and groundwater investigation practices; I am either a Geologist or an Alabama Registered Professional Engineer; I am experienced in soil and groundwater investigations; and the information I have submitted, to the best of my knowledge and belief, is true, accurate, and complete.

Signature of Geologist: _____ Date: _____

Signature of Alabama Registered Professional Engineer: David B. Tester, P.E. Date: 10/19/01

Alabama P.E. Registration Number: 23633

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Signature of Tank Owner: _____ Date: _____

FOR ADEM USE ONLY:

Reviewed By: _____ Date: _____

COMMENTS:

FORM 1133
11/05/97

FOR ADEM OFFICE USE ONLY	
TO: Air Division	FROM: UST Compliance Section

ADEM UST CLOSURE
TOTAL POTENTIAL VOC EMISSIONS CALCULATIONS

FACILITY I.D. NO.: NA

DATE OF THIS REPORT: 7/31/00

INCIDENT NO. (If applicable). UST __ __ - __ __ - __ __

UST OWNER: U.S. Army

FACILITY COUNTY: Calhoun

ADDRESS: Ft. McClellan, Anniston, AL

FACILITY NAME: Parcel 140

CONTACT NAME:

LOCATION: A-1(2)

CONTACT PHONE #:

ADDRESS: Ft. McClellan, Anniston, AL

Name of Consultant who performed calculations: James R. Messer

Consultant's Phone Number: 256-848-3499

	a	ppm x	b	cyds x .002 =	c	lbs. VOC emissions
Sample 1	29.8	ppm x	2	cyds x .002 =	0.119	lbs. VOC emissions
Sample 2		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 3		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 4		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 5		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 6		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 7		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 8		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 9		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 10		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 11		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 12		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 13		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 14		ppm x		cyds x .002 =		lbs. VOC emissions
Sample 15		ppm x		cyds x .002 =		lbs. VOC emissions

TOTAL POTENTIAL EMISSIONS = 0.119 lbs. VOC emissions

*** NOTE - If more samples are taken than indicated on this form, please attach additional pages as necessary.**

This form must be completed and submitted with the ADEM UST Closure Site Assessment Report Form.

FIGURES

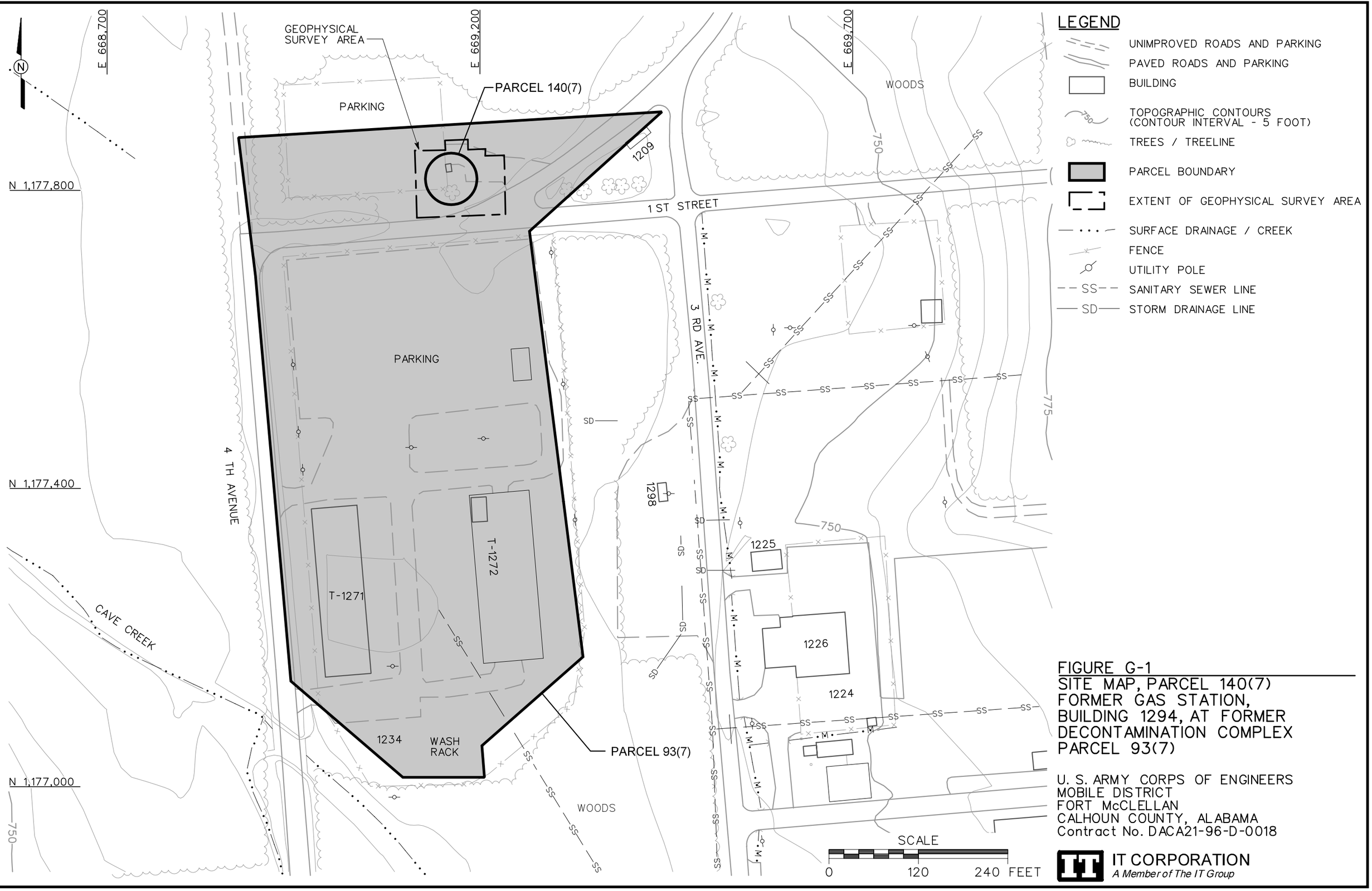

FIGURE G-1
SITE MAP, PARCEL 140(7)
FORMER GAS STATION,
BUILDING 1294, AT FORMER
DECONTAMINATION COMPLEX
PARCEL 93(7)

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

IT CORPORATION
A Member of The IT Group

DBILLING
c:\cadd\design\783149es.169
02/13/01 01:48:51
STARTING DATE: 02/13/01
DRAWN BY: D. BOMAR
INITIATOR: J. BOND
PROJ. MGR.: J. YACOUB
DRAFT. CHCK. BY:
ENGR. CHCK. BY: J. JENKINS
DATE LAST REV.:
DRAWN BY:
DWG. NO.: ...\783149es.169
PROJ. NO.: 783149

LEGEND

- GEOPHYSICAL SURVEY BOUNDARY
- CIVIL SURVEY STAKE LOCATION
- 40N — GPR PROFILES PRESENTED
- A-1(2) — GEOPHYSICAL ANOMALY
- 5" x 8" CONCRETE FOOTINGS SOME WITH BOLTS AND METAL FLANGES
- P — PIPE/BURIED UTILITY
- FENCE
- TREES / TREELINE
- SOIL SAMPLE LOCATION

NAD 83 SPHEROID, ALABAMA EAST STATE PLANE DATUM		
LOCAL GRID COORDINATES	STATE PLANE COORDINATES	
0N,0E	1177760.814N	669163.674E
0N,70E	1177766.546N	669233.003E
80N,70E	1177845.893N	669227.028E
100N,30E	1177861.635N	669185.484E
100N,0E	1177861.320N	669154.980E

NOTE:

1. THIS FIGURE REPRESENTS CONDITIONS AT THE SITE IN 1999 WHEN THE GEOPHYSICAL SURVEY WAS CONDUCTED. THE EQUIPMENT HAS BEEN REMOVED.

SCALE
0 20 40 FEET

FIGURE G-2
SITE MAP WITH SAMPLE LOCATIONS AND GEOPHYSICAL INTERPRETATION PARCEL 140(7) FORMER GAS STATION BUILDING 1294 AT FORMER DECONTAMINATION COMPLEX, PARCEL 93(7)

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT
FORT McCLELLAN
CALHOUN COUNTY, ALABAMA
Contract No. DACA21-96-D-0018

IT CORPORATION
A Member of The IT Group

DRAFT. CHCK. BY:
ENGR. CHCK. BY: J. JENKINS
INITIATOR: J. BOND
PROJ. MGR.: J. YACOUB
STARTING DATE: 02/13/01
DRAWN BY: D. BOMAR
REV.:
DATE LAST REV.:
DRAWN BY:
DWG. NO.: ...\783149es.170
PROJ. NO.: 783149
02/14/01 03:54:54 PM
DBILLING
c:\cadd\design\783149es.170

UST INVESTIGATION PHOTOGRAPHS

Photo 1: Anomaly A-1(2). Beginning excavation. Facing east.

Photo 2: Anomaly A-1(2). Concrete slab with rebar (source of anomaly).

Photo 3: Anomaly A-1(2). Uncapped piping below southeast corner of concrete pad.

Photo 4: Anomaly A-1(2). Capped piping below northeast corner of concrete pad.

ANALYTICAL RESULTS

SEVERN TRENT SERVICES

STL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921-5947

Tel: 865-291-3000
Fax: 865-584-4315
www.stl-inc.com

ANALYTICAL REPORT

PROJECT NO. 783149

FIMC

Lot #: H0G250140

Duane Nielsen

IT Corp - Ft. McClellan
312 Directors Drive
Knoxville, TN 37923

SEVERN TRENT LABORATORIES, INC.

John Reynolds
Project Manager

August 7, 2000

SAMPLE SUMMARY

H0G250140

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
DGQ3M	001	LL0006	07/24/00	13:45
DGQ3R	002	LL0007	07/24/00	13:30
DGQ3W	003	LL8001	07/24/00	14:00

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

ANALYTICAL METHODS SUMMARY

H0G250140

PARAMETER	ANALYTICAL METHOD
Extractable Petroleum Hydrocarbons	SW846 8015B
Paint Filter Test	SW846 9095
Percent Moisture	MCAWW 160.3 MOD
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B
Volatile Petroleum Hydrocarbons	SW846 8015B
Volatiles by GC	SW846 8021B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

PROJECT NARRATIVE
H0G250140

The results reported herein are applicable to the samples submitted for analysis only.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Subcontract

The following analyses were performed by STL Tampa East, 5910 Breckenridge Parkway, Tampa, FL 33601: Gasoline and Diesel Range Organics (SW846 8015B), Paint Filter Test (SW846 9095), Polynuclear Aromatic Hydrocarbons (SW846 8310) and BTEX (SW846 8021B).

Quality Control

All holding times and QC criteria were met.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

GC Semivolatiles

Lot-Sample #...:	H0G250140-003	**Work Order #...:**	DGQ3W101	**Matrix.....:**	SOLID
Date Sampled...:	07/24/00	**Date Received..:**	07/25/00		
Prep Date.....:	07/25/00	**Analysis Date..:**	07/28/00		
Prep Batch #...:	0207367				
Dilution Factor:	1				
% Moisture.....:	11	**Method.....:**	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Diesel Range Organics	**29**	**11**	**mg/kg**	**3.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	60	(25 - 113)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: H0G250140 **Work Order #...:** DGQWC101 **Matrix.....:** SOLID
MB Lot-Sample #: B0G250000-367

Prep Date.....: 07/25/00
Analysis Date..: 07/28/00 **Prep Batch #...:** 0207367
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Diesel Range Organics	**3.3 J**	**10**	**mg/kg**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	96	(25 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: H0G250140 **Work Order #...:** DGQWC102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G250000-367 DGQWC103-LCSD
Prep Date.....: 07/25/00 **Analysis Date..:** 07/27/00
Prep Batch #...: 0207367
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Diesel Range Organics	**59.2**	**66.7**	**mg/kg**	**113**		**SW846 8015B**
	59.2	**65.3**	**mg/kg**	**110**	**2.1**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	86	(25 - 113)
	96	(25 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: H0G250140 **Work Order #...:** DGQWC102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G250000-367 DGQWC103-LCSD
Prep Date.....: 07/25/00 **Analysis Date..:** 07/27/00
Prep Batch #...: 0207367
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Diesel Range Organics	**113**	**(35 - 115)**			**SW846 8015B**
	110	**(35 - 115)**	**2.1**	**(0-34)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetratriacontane	86	(25 - 113)
	96	(25 - 113)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

GC Volatiles

Lot-Sample #...:	H0G250140-003	**Work Order #...:**	DGQ3W102	**Matrix.....:**	SOLID
Date Sampled...:	07/24/00	**Date Received..:**	07/25/00		
Prep Date.....:	07/26/00	**Analysis Date..:**	07/26/00		
Prep Batch #...:	0209248				
Dilution Factor:	1				
% Moisture.....:	11	**Method.....:**	SW846 8015B		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Gasoline Range Organics	**0.82 J**	**5.6**	**mg/kg**	**0.48**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	82	(39 - 163)

NOTE(S):

J Estimated result. Result is less than RL.

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H0G250140 **Work Order #...:** DGWCN101 **Matrix.....:** SOLID
MB Lot-Sample #: B0G270000-248

Prep Date.....: 07/26/00
Analysis Date..: 07/26/00 **Prep Batch #...:** 0209248
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Gasoline Range Organics	ND	5.0	mg/kg	SW846 8015B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	77	(39 - 163)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H0G250140 **Work Order #...:** DGWCN102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G270000-248 DGWCN103-LCSD
Prep Date.....: 07/26/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0209248
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Gasoline Range Organics	**20.0**	**16.9**	**mg/kg**	**85**		**SW846 8015B**
	20.0	**17.8**	**mg/kg**	**89**	**5.3**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	90	(39 - 163)
	86	(39 - 163)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H0G250140 **Work Order #...:** DGWCN102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G270000-248 DGWCN103-LCSD
Prep Date.....: 07/26/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0209248
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Gasoline Range Organics	**85**	**(26 - 115)**			**SW846 8015B**
	89	**(26 - 115)**	**5.3**	**(0-25)**	**SW846 8015B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	90	(39 - 163)
	86	(39 - 163)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

GC Volatiles

Lot-Sample #...: H0G250140-001 **Work Order #...:** DGQ3M107 **Matrix.....:** SOLID
Date Sampled...: 07/24/00 **Date Received..:** 07/25/00
Prep Date.....: 07/26/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0209451
Dilution Factor: 1
% Moisture.....: 21 **Method.....:** SW846 8021B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	64	ug/kg	23
Ethylbenzene	ND	64	ug/kg	28
Toluene	ND	64	ug/kg	18
Xylenes (total)	ND	64	ug/kg	60

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	95	(46 - 143)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

GC Volatiles

Lot-Sample #...: H0G250140-002 **Work Order #...:** DGQ3R105 **Matrix.....:** SOLID
Date Sampled...: 07/24/00 **Date Received..:** 07/25/00
Prep Date.....: 07/26/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0209451
Dilution Factor: 1
% Moisture.....: 18 **Method.....:** SW846 8021B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Benzene	ND	61	ug/kg	22
Ethylbenzene	ND	61	ug/kg	27
Toluene	ND	61	ug/kg	17
Xylenes (total)	ND	61	ug/kg	58

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	114	(46 - 143)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC Volatiles

Client Lot #...: H0G250140 **Work Order #...:** DGXA9101 **Matrix.....:** SOLID
MB Lot-Sample #: B0G270000-451

Prep Date.....: 07/26/00
Analysis Date..: 07/26/00 **Prep Batch #...:** 0209451
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	50	ug/kg	SW846 8021B
Ethylbenzene	ND	50	ug/kg	SW846 8021B
Toluene	ND	50	ug/kg	SW846 8021B
Xylenes (total)	ND	50	ug/kg	SW846 8021B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(46 - 143)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Volatiles

Client Lot #...: H0G250140 **Work Order #...:** DGXA9102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G270000-451 DGXA9103-LCSD
Prep Date.....: 07/26/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0209451
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**1000**	**952**	**ug/kg**	**95**		**SW846 8021B**
	1000	**997**	**ug/kg**	**100**	**4.6**	**SW846 8021B**
Ethylbenzene	**1000**	**1060**	**ug/kg**	**106**		**SW846 8021B**
	1000	**1050**	**ug/kg**	**105**	**1.0**	**SW846 8021B**
Toluene	**1000**	**996**	**ug/kg**	**100**		**SW846 8021B**
	1000	**1010**	**ug/kg**	**101**	**1.7**	**SW846 8021B**
m-Xylene & p-Xylene	**2000**	**2130**	**ug/kg**	**107**		**SW846 8021B**
	2000	**2140**	**ug/kg**	**107**	**0.39**	**SW846 8021B**
o-Xylene	**1000**	**1040**	**ug/kg**	**104**		**SW846 8021B**
	1000	**1050**	**ug/kg**	**105**	**1.2**	**SW846 8021B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(46 - 143)
	110	(46 - 143)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Volatiles

Client Lot #...: H0G250140 **Work Order #...:** DGXA9102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G270000-451 DGXA9103-LCSD
Prep Date.....: 07/26/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0209451
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**95**	**(62 - 128)**			**SW846 8021B**
	100	**(62 - 128)**	**4.6**	**(0-30)**	**SW846 8021B**
Ethylbenzene	**106**	**(66 - 119)**			**SW846 8021B**
	105	**(66 - 119)**	**1.0**	**(0-20)**	**SW846 8021B**
Toluene	**100**	**(73 - 123)**			**SW846 8021B**
	101	**(73 - 123)**	**1.7**	**(0-20)**	**SW846 8021B**
m-Xylene & p-Xylene	**107**	**(70 - 130)**			**SW846 8021B**
	107	**(70 - 130)**	**0.39**	**(0-20)**	**SW846 8021B**
o-Xylene	**104**	**(70 - 130)**			**SW846 8021B**
	105	**(70 - 130)**	**1.2**	**(0-20)**	**SW846 8021B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	109	(46 - 143)
	110	(46 - 143)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

HPLC

Lot-Sample #...:	H0G250140-001	**Work Order #...:**	DGQ3M101	**Matrix.....:**	SOLID
Date Sampled...:	07/24/00	**Date Received..:**	07/25/00		
Prep Date.....:	07/25/00	**Analysis Date..:**	07/26/00		
Prep Batch #...:	0207366				
Dilution Factor:	1				
% Moisture.....:	21	**Method.....:**	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	64	ug/kg	6.4
Acenaphthylene	ND	64	ug/kg	8.1
Anthracene	ND	64	ug/kg	4.2
Benzo(a)anthracene	**2.1 J**	**6.4**	**ug/kg**	**1.3**
Benzo(a)pyrene	ND	6.4	ug/kg	1.1
Benzo(b)fluoranthene	ND	6.4	ug/kg	0.99
Benzo(ghi)perylene	ND	6.4	ug/kg	1.4
Benzo(k)fluoranthene	ND	6.4	ug/kg	0.64
Chrysene	**2.5 J**	**6.4**	**ug/kg**	**1.1**
Dibenz(a,h)anthracene	ND	6.4	ug/kg	1.1
Fluoranthene	ND	6.4	ug/kg	1.1
Fluorene	ND	64	ug/kg	12
Indeno(1,2,3-cd)pyrene	ND	6.4	ug/kg	0.89
Naphthalene	ND	64	ug/kg	22
Phenanthrene	ND	64	ug/kg	12
Pyrene	**9.9**	**6.4**	**ug/kg**	**1.1**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Carbazole	39	(17 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

HPLC

Lot-Sample #...:	H0G250140-002	**Work Order #...:**	DGQ3R101	**Matrix.....:**	SOLID
Date Sampled...:	07/24/00	**Date Received..:**	07/25/00		
Prep Date.....:	07/25/00	**Analysis Date..:**	07/27/00		
Prep Batch #...:	0207366				
Dilution Factor:	2				
% Moisture.....:	18	**Method.....:**	SW846 8310		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	120	ug/kg	12
Acenaphthylene	ND	120	ug/kg	16
Anthracene	**31 J**	**120**	**ug/kg**	**8.1**
Benzo(a)anthracene	**49**	**12**	**ug/kg**	**2.5**
Benzo(a)pyrene	**340**	**12**	**ug/kg**	**2.1**
Benzo(b)fluoranthene	**160**	**12**	**ug/kg**	**1.9**
Benzo(ghi)perylene	**210**	**12**	**ug/kg**	**2.7**
Benzo(k)fluoranthene	**120**	**12**	**ug/kg**	**1.2**
Chrysene	**98**	**12**	**ug/kg**	**2.2**
Dibenz(a,h)anthracene	**13**	**12**	**ug/kg**	**2.0**
Fluoranthene	**130**	**12**	**ug/kg**	**2.2**
Fluorene	ND	120	ug/kg	22
Indeno(1,2,3-cd)pyrene	**200**	**12**	**ug/kg**	**1.7**
Naphthalene	ND	120	ug/kg	42
Phenanthrene	ND	120	ug/kg	24
Pyrene	**110**	**12**	**ug/kg**	**2.2**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Carbazole	35	(17 - 115)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

METHOD BLANK REPORT

HPLC

Client Lot #...: H0G250140 **Work Order #...:** DGQW6101 **Matrix.....:** SOLID
MB Lot-Sample #: B0G250000-366

Prep Date.....: 07/25/00
Analysis Date..: 07/26/00 **Prep Batch #...:** 0207366
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	50	ug/kg	SW846 8310
Acenaphthylene	ND	50	ug/kg	SW846 8310
Anthracene	ND	50	ug/kg	SW846 8310
Benzo(a)anthracene	ND	5.0	ug/kg	SW846 8310
Benzo(a)pyrene	ND	5.0	ug/kg	SW846 8310
Benzo(b)fluoranthene	ND	5.0	ug/kg	SW846 8310
Benzo(ghi)perylene	ND	5.0	ug/kg	SW846 8310
Benzo(k)fluoranthene	ND	5.0	ug/kg	SW846 8310
Chrysene	ND	5.0	ug/kg	SW846 8310
Dibenz(a,h)anthracene	ND	5.0	ug/kg	SW846 8310
Fluoranthene	ND	5.0	ug/kg	SW846 8310
Fluorene	ND	50	ug/kg	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	5.0	ug/kg	SW846 8310
Naphthalene	ND	50	ug/kg	SW846 8310
Phenanthrene	ND	50	ug/kg	SW846 8310
Pyrene	ND	5.0	ug/kg	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Carbazole	77	(17 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: H0G250140 **Work Order #...:** DGQW6102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G250000-366 DGQW6103-LCSD
Prep Date.....: 07/25/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0207366
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Acenaphthene	**333**	**183**	**ug/kg**	**55**		**SW846 8310**
	333	**205**	**ug/kg**	**62**	**11**	**SW846 8310**
1-Methylnaphthalene	**333**	**170**	**ug/kg**	**51**		**SW846 8310**
	333	**200**	**ug/kg**	**60**	**16**	**SW846 8310**
Chrysene	**33.3**	**23.9**	**ug/kg**	**72**		**SW846 8310**
	33.3	**25.9**	**ug/kg**	**78**	**8.2**	**SW846 8310**
Fluorene	**333**	**202**	**ug/kg**	**61**		**SW846 8310**
	333	**217**	**ug/kg**	**65**	**6.9**	**SW846 8310**
Naphthalene	**333**	**153**	**ug/kg**	**46**		**SW846 8310**
	333	**177**	**ug/kg**	**53**	**15**	**SW846 8310**
Pyrene	**33.3**	**23.4**	**ug/kg**	**70**		**SW846 8310**
	33.3	**22.9**	**ug/kg**	**69**	**2.0**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Carbazole	73	(17 - 115)
	71	(17 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: H0G250140 **Work Order #...:** DGQW6102-LCS **Matrix.....:** SOLID
LCS Lot-Sample#: B0G250000-366 DGQW6103-LCSD
Prep Date.....: 07/25/00 **Analysis Date..:** 07/26/00
Prep Batch #...: 0207366
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Acenaphthene	**55**	**(41 - 115)**			**SW846 8310**
	62	**(41 - 115)**	**11**	**(0-30)**	**SW846 8310**
1-Methylnaphthalene	**51**	**(45 - 115)**			**SW846 8310**
	60	**(45 - 115)**	**16**	**(0-27)**	**SW846 8310**
Chrysene	**72**	**(45 - 115)**			**SW846 8310**
	78	**(45 - 115)**	**8.2**	**(0-27)**	**SW846 8310**
Fluorene	**61**	**(42 - 115)**			**SW846 8310**
	65	**(42 - 115)**	**6.9**	**(0-28)**	**SW846 8310**
Naphthalene	**46**	**(28 - 116)**			**SW846 8310**
	53	**(28 - 116)**	**15**	**(0-26)**	**SW846 8310**
Pyrene	**70**	**(46 - 115)**			**SW846 8310**
	69	**(46 - 115)**	**2.0**	**(0-50)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Carbazole	73	(17 - 115)
	71	(17 - 115)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

TOTAL Metals

Lot-Sample #...: H0G250140-001 **Matrix.....:** SOLID
Date Sampled...: 07/24/00 **Date Received..:** 07/25/00
% Moisture.....: 21

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0207283						
Lead	**20.9**	**0.38**	**mg/kg**	**SW846 6010B**	**07/25-07/26/00**	**DGQ3M104**
		Dilution Factor: 1		Analysis Time..: 10:37	MDL.....: 0.15	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

TOTAL Metals

Lot-Sample #...: H0G250140-002 Matrix.....: SOLID
Date Sampled...: 07/24/00 Date Received..: 07/25/00
% Moisture.....: 18

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0207283						
Lead	14.0	0.37	mg/kg	SW846 6010B	07/25-07/26/00	DGQ3R104
		Dilution Factor: 1		Analysis Time..: 10:55	MDL.....: 0.15	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

TOTAL Metals

Lot-Sample #...: H0G250140-003 **Matrix.....:** SOLID
Date Sampled...: 07/24/00 **Date Received..:** 07/25/00
% Moisture.....: 11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0207283						
Lead	**3.6**	**0.34**	**mg/kg**	**SW846 6010B**	**07/25-07/26/00**	**DGQ3W104**
		Dilution Factor: 1		Analysis Time..: 11:00	MDL.....: 0.14	

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: H0G250140 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: H0G250000-283 **Prep Batch #...:** 0207283						
Lead	ND	0.30	mg/kg	SW846 6010B	07/25-07/26/00	DGQFX101
		Dilution Factor: 1				
		Analysis Time..: 10:28				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: H0G250140 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H0G250000-283 **Prep Batch #...:** 0207283							
Lead	50.0	50.0	mg/kg	100	SW846 6010B	07/25-07/26/00	DGQFX102
			Dilution Factor: 1				
			Analysis Time..: 10:32				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: H0G250140 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: H0G250000-283 **Prep Batch #...:** 0207283					
Lead	100	(80 - 120)	SW846 6010B	07/25-07/26/00	DGQFX102
		Dilution Factor: 1			
		Analysis Time..: 10:32			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0006

General Chemistry

Lot-Sample #...: H0G250140-001 **Work Order #...:** DGQ3M **Matrix.....:** SOLID
Date Sampled...: 07/24/00 **Date Received..:** 07/25/00
% Moisture.....: 21

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**21.4**	**0.10**	**%**	**MCAWW 160.3 MOD**	**07/26-07/27/00**	**0208135**

Dilution Factor: 1 MDL.....:

IT CORP - FT. MCCLELLAN

Client Sample ID: LL0007

General Chemistry

Lot-Sample #...: H0G250140-002 **Work Order #...:** DGQ3R **Matrix.....:** SOLID
Date Sampled...: 07/24/00 **Date Received..:** 07/25/00
% Moisture.....: 18

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	**18.5**	**0.10**	**%**	**MCAWW 160.3 MOD**	**07/26-07/27/00**	**0208135**

Dilution Factor: 1 MDL.....:

IT CORP - FT. MCCLELLAN

Client Sample ID: LL8001

General Chemistry

Lot-Sample #...: H0G250140-003 Work Order #...: DGQ3W Matrix.....: SOLID
Date Sampled...: 07/24/00 Date Received..: 07/25/00
% Moisture.....: 11

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Paint Filter Test	NO		No Units	SW846 9095	07/26/00	0209111
		Dilution Factor: 1		MDL.....:		
Percent Moisture	11.2	0.10	%	MCAWW 160.3 MOD	07/26-07/27/00	0208135
		Dilution Factor: 1		MDL.....:		

SEVERN TRENT
Environmental Services

Sample Delivery Group Assignment Form

IT CORPORATION
FT McCLELLAN
UST 140

SDG# UST14001

*	DATE REC'D	LOT#	CLIENT ID	VOA	PAH	PEST	EXP	MET	PCB	PH	DRO	GRO	PAINT
				8021B	8310	8081A	8330	6010B	8082	9045	8015	8015	FILTER
1	7/25/00	H0G250140	LL0006	T	T			X					
2			LL0007	T	T			X					
3			LL8001					X			T	T	T
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													

NC = NORTH CANTON
T = STL TAMPA
D= STL DENVER
WS = STL WEST SACRAMENTO
P = PITTSBURGH
IT = IT CORP KNOX

MATRIX: SOIL
ANALYTICAL DUE: 7-27-00
REPORT DUE: 8-3-00
CLOSED? YES

8/11/008:04 AM

1406250140

IT CORPORATION
A Member of The IT Group

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140A1-072400-QSK

Project Number: 783149
Project Name: Fort McClellan, SAD TERC
Sample Coordinator: Oliver Allen
Turnaround Time: 48 hour Turn

Samples Shipment Date: 25 JUL 2000
Lab Destination: Quanterra Environmental Services - Knoxville
Lab Contact: John Reynolds
Project Contact: Randy McBride
Carrier/Waybill No.: Quality Express/Courier

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: None

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal:
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

1. Relinquished By (Signature/Affiliation) D.K. Allen	Date: 25 July 2000 Time: 0800	1. Received By (Signature/Affiliation) Robert E Myers	Date: 25 Jul 2000 Time: 0800
2. Relinquished By (Signature/Affiliation) Robert E. Myers	Date: 25 Jul 2000 Time: 12:50	2. Received By (Signature/Affiliation) David D. Flam	Date: 7-25-00 Time: 1250
3. Relinquished By (Signature/Affiliation)	Date: Time:	3. Received By (Signature/Affiliation)	Date: Time:

Comments: None

Recd Temp 2°C
Custody seals intact
D.F. 7-25-00
Hand Del.

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	8 oz CWM	1	None except cool to 4 C	Lead by 6010B	N		
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	8 oz CWM	1	None except cool to 4 C	Lead by 6010B	N		
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	8 oz CWM	1	None except cool to 4 C	Lead by 6010B, Paint Filter	N		

25476 COA 7-27 FAX 8-2 8-3 HOC250140

IT CORPORATION
A Member of The IT Group

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140A1-072400-QST

Project Number: 783149
Project Name: Fort McClellan, SAD TERC
Sample Coordinator: Oliver Allen
Turnaround Time: 48 hour

Samples Shipment Date: 24 JUL 2000
Lab Destination: QUANTERRA - TAMPA
Lab Contact: Michelle Lersch
Project Contact: Randy McBride
Carrier/Waybill No.: Fed Ex/790865552957

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: none

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal:
Return to Client ☐ Disposal by Lab ☐ Archive (mos.)

1. Relinquished By (Signature/Affiliation) D.K.Allen IT	Date: 24 July 00 Time: 1630
1. Received By (Signature/Affiliation)	Date: Time:
2. Relinquished By (Signature/Affiliation)	Date: Time:
2. Received By (Signature/Affiliation)	Date: Time:
3. Relinquished By (Signature/Affiliation)	Date: Time:
3. Received By (Signature/Affiliation)	Date: Time:

Comments: none

48 hour Turn

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N		
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N		
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N		
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N		
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	8 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	5 g EnCore	3	None except cool to 4 C	Gasoline Range Organics by 8015B	N		

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IT CORPORATION
A Member of The IT Group

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140A1-072400-QST

Page 1 of 1

Project Number: 783149
Project Name: Fort McClellan, SAD TERC
Sample Coordinator: Oliver Allen
Turnaround Time: 48 hour

Samples Shipment Date: 24 JUL 2000
Lab Destination: QUANTERRA - TAMPA
Lab Contact: Michelle Lersch
Project Contact: Randy McBride
Carrier/Waybill No.: Fed Ex/790865552957

Bill To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Report To: Duane Nielsen
312 Directors Drive
Knoxville TN 37923

Special Instructions: none

Possible Hazard Indentification:
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal:
Return to Client ☐ Disposal by Lab ☐ Archive (mos.)

1. Relinquished By (Signature/Affiliation) O.L.Allen IT — Date: 24 July 00 Time: 1630	1. Received By (Signature/Affiliation) Michele H. Lersch STL — Date: 07/25/00 Time: 1030
2. Relinquished By (Signature/Affiliation) — Date: Time:	2. Received By (Signature/Affiliation) — Date: Time:
3. Relinquished By (Signature/Affiliation) — Date: Time:	3. Received By (Signature/Affiliation) — Date: Time:

Comments: none

48 hour Turn

Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Fil	CID	Condition On Receipt
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N		4°C
LL0006	UST-140A1-CS06-CS-LL0006-REG	24 JUL 2000	13:45	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N		
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	5 g EnCore	3	None except cool to 4 C	BTEX by 8021B	N		
LL0007	UST-140A1-CS07-CS-LL0007-REG	24 JUL 2000	13:30	8 oz CWM	1	None except cool to 4 C	PAH's by 8310	N		
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	8 oz CWM	1	None except cool to 4 C	Deisel Range Organics by 8015B	N		
LL8001	UST-140A1-SP01-SP-LL8001-REG	24 JUL 2000	14:00	5 g EnCore	3	None except cool to 4 C	Gasoline Range Organics by 8015B	N		

STL KNOXVILLE

SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Page 1 of 2

CLIENT: IT Corp PROJECT: Ft McClellan Lot No.: H062501410

TO BE COMPLETED BY SAMPLE RECEIPT ASSOCIATE:

	1. Sample Receipt:	YES	NO	NA
a.	Do sample container labels match COC? (IDs, Dates, Times)	✓		
b.	Is the cooler temperature within acceptance limits?	✓		
c.	Were samples received with correct preservative (excluding Encore)?	✓		
d.	Were custody seals present/intact on cooler and/or containers?	✓		
e.	Were all of the samples listed on the COC received?	✓		
f.	Were all of the sample containers received intact?	✓		
g.	Were containers received for VOAs received without headspace?			✓
h.	Were samples received in the appropriate containers?	✓		
i.	Did you check for residual chlorine, if necessary?			✓
j.	Were samples received within 1/2 of the (QAMP) holding time?	✓		
k.	Were samples screened for radioactivity?			✓
l.	Were client's sample documents (RFA/COC) received?	✓		
m.	Has the RFA/COC been relinquished? (Signed, Dated, Timed)	✓		
n.	Are test/parameters listed for each sample?	✓		
o.	Is the matrix of the samples noted?	✓		
p.	Is the date/time of sample collection noted?	✓		
q.	Is the client and project name/No. identified?	✓		

SAMPLE RECEIVING ASSOCIATE: David D. Flowe DATE: 7-25-00

TO BE COMPLETED BY PROJECT MANAGER :

	1. Project manager "Sample Greet":	YES	NO	NA
a.	Quote number to be logged-in under 25476	✓		
b.	Informed Login associates of special instructions ? JAK Ave 7/27			
2.	If custody seals were missing/not intact, was client notified?			✓

PROJECT MANAGER : [signature] DATE: 7/25/00

Client Sample ID	Analysis Requested	Condition (see legend)	Comments/Action

☐ Client informed on _____ by _____. Person contacted: _____.

☐ Noted actions in comments section above.

☐ No action necessary; process as is.

Project Manager: _____ Date: _____

STL KNOXVILLE

SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST
LEGEND

Item	Condition
Cooler:	1a Not received, COC available
	1b Leaking
	1c Other:_____
Temperature:	2a Temp Blank = _____
	2b Cooler Temp = _____
	(cooler temp should be used only if there is no temp blank)
Container:	3a Leaking
	3b Broken
	3c Extra
	3d No labels
	3e Headspace (VOA only)
	3f Other: _____
Samples:	4a Samples received but not on COC
	4b Samples not received but on COC
	4c Holding time expired
	4d Sample received with < ½ holding time remaining
	4e Sample preservative: _____
	4f Other: _____
Custody Seals:	5a None
	5b Not intact
	5c Other:_____
Chain of Custody (COC):	6a Not relinquished by client
	6b Incomplete information
	6c Other:_____
Container Labels:	7a Doesn't match COC
	7b Incomplete information
	7c Marking smeared
	7d Label torn
	7e Other:_____

Other (8): _____
_____
_____
_____

STL KNOXVILLE

SAMPLE LOG-IN (LOT SUMMARY) REVIEW CHECKLIST

CLIENT: ITKMP PROJECT: ETMC Lot No.: 460 250170

TO BE COMPETED BY PROJECT MANAGER:

		YES	NO	NA
1.	Client Documents (Request for Analysis/Chain of Custody):			
a.	Was QuanTIMS lot number documented on all paperwork?	✓		
b.	Was RFA/COC signed upon receipt, including date/time?	✓		
c.	Is preservative check (pH) noted on RFA/COC?			✓
d.	Is cooler temperature & custody seal condition noted on COC?	✓		
2.	Log-in (Lot Folder) Review:	YES	NO	NA
a.	Do client IDs on Client Summaries match RFA/COC?	✓		
b.	Were tests/parameters assigned correctly?	✓		
c.	Were correct analytical and report due dates assigned?	✓		
d.	Has the correct fax due date been assigned to the lot?	✓		
e.	Is the correct report format noted in the lot summary?	✓		
f.	Is percent moisture logged for samples requiring this analysis?	✓		
g.	Are client assigned QC samples properly defined?			✓
3.	Contract/Subcontract Review:	YES	NO	NA
a.	Is there a contract number or PO for this work?	✓		
b	If the purchase order number is given, is it noted in Lot header?	✓		
c.	If samples were subcontracted, was copy of COC in folder?	✓		
4.	SDG Review:	YES	NO	NA
a.	If SDG is required, is SDG form in Lot folder?	✓		
b	Is SDG number noted in Lot header & sample comments?	✓		
c.	If SDG is complete, has the due date been revised & marked closed?	✓		
5.	Checklist Review:	YES	NO	NA
a.	Has Sample Receipt Checklist been filled-out?	✓		
b.	Was there a CUR?		✓	
c.	Were all issues resolved?			✓

LOT FOLDER REVIEWED BY: _____ DATE: 7/26/10